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10/553,390

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Ken Mashitani

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MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER

ZHANG, FAN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/553,390 | Applicant(s) MASHITANI ET AL. | |
| | Examiner FAN ZHANG | Art Unit 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/17/2005, 12/15/2006, 4/8/2009, and 12/07/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Regarding claims 1-9, the claims do not comply with the current standards for patent eligible subject matter under 35 USC § 101. The first step in determining whether a claim recites patent eligible subject matter is to determine whether the claim falls within one of the four statutory categories of invention recited in 35 USC § 101: process, machine, manufacture and composition of matter. Claims 1-9 of the pending application fall under the statutory category of a “process.” For the purpose of § 101, a “process” has been given a specialized, limited meaning by the courts.

A § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101. Claims 1-9 are not tied to another statutory class since the steps in the claims can be performed manually without the use of a particular machine. The claims could conceivably be interpreted to mean that a person manually provides all the header information and selects 2D images based on provided information. Furthermore, the instant claims do not transfer underlying subject

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matter to a different state or thing as none concrete matter has been produced by the method steps. Thus, to qualify as a § 101 statutory process, the claims should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

For further explanation, see MPEP § 2106 IV.B.I. and the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility on the uspto.gov website:

(http://www.uspto.gov/web/offices/pacldapp/opla/preognotice/guidelines101_20051026.pdf).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 (b) that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 4-6, 8-11, 13-17, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Takemoto et al (US Pub: 2003/0048354) (Applicant submitted reference).**

Regarding claim 1, Takemoto et al teach: A stereoscopic vision-use image providing method, when providing as data a plurality of two-dimensional images of

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different viewpoints, used as stereoscopic vision-use images [p0135], providing attached information composed of: viewpoint-number information allotted to each two-dimensional image data, or information for obtaining, by an arithmetic calculation on a receiver side, viewpoint-number information in each two-dimensional image area in image data [abstract]; and viewpoint-number information as information for selecting one or more two-dimensional images, together with the two-dimensional image data [p0045, p0175-p0183].

Regarding claim 4, Takemoto et al teach: A stereoscopic vision-use image providing method, when providing as data a plurality of two-dimensional images of different viewpoints, used as stereoscopic images, providing attached information [p0135] composed of: viewpoint-number information allotted to each two-dimensional image data, or information for obtaining, by an arithmetic calculation on a receiver side, viewpoint-number information in each two-dimensional image area in image data [abstract]; viewpoint-number information as information for selecting one or more two-dimensional images [p0045, p0175-p0183]; and information for indicating whether or not the plurality of two-dimensional images are an endless series of two-dimensional images, together with the two-dimensional image data [p0141-p0147 (Whether it is a field sequential image or a separate image.)].

Regarding claim 5, Takemoto et al further teach: A stereoscopic vision-use image providing method according to any one of claims 1 to 4, providing attached

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information composed of display-manner information indicating in what manner the two-dimensional image data selected by the information for selecting is to be displayed as a secondary image which is not a primary stereoscopic vision-use image, together with the two-dimensional image data [p0140-p0146].

Regarding claim 6, Takemoto et al further teach: A stereoscopic vision-use image providing method according to any one of claims 1 to 5, providing attached information composed of purpose-of-use information indicating for what purposes the two-dimensional image data selected by the information for selecting is to be used, together with the two-dimensional image data [p0140-p0146 (Purpose of use of an image is indicated as whether or not the image is for stereovision.)].

Regarding claim 8, Takemoto et al further teach: A stereoscopic vision-use image providing method according to any one of claims 1 to 7, providing attached information composed of information indicating what description formats are adopted as a description format of the information, together with the two-dimensional image data [p0029, p0139 (The predetermined prescribed coding format is considered as a description format.)].

Regarding claim 9, Takemoto et al further teach: A stereoscopic vision-use image providing method according to any one of claims 1 to 8, wherein providing of information is performed by any one of broadcasting, communicating, or recording into a

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recording medium [abstract].

Regarding claim 10, Takemoto et al teach: A stereoscopic image display apparatus for creating stereoscopic vision-use images based on a plurality of two-dimensional image data of different viewpoints [abstract, p0002], comprising: a means for obtaining, from attached information attached to the two-dimensional image data, viewpoint-number information of each two-dimensional image and viewpoint-number information as information for selecting the two-dimensional images [p0031]; and a means, in a case of executing a process in which it is needed to select one or a plurality of two-dimensional image data, which is not a primary stereoscopic vision-use image process, for selecting the two-dimensional image data specified by the viewpoint-number information as information for selecting the two-dimensional images [p0128, p0175-p0183].

Regarding claim 11, Takemoto et al teach: A stereoscopic image display apparatus for creating stereoscopic vision-use images based on a plurality of two-dimensional image data of different viewpoints [abstract, p0002], comprising: a means for obtaining, from attached information attached to the two-dimensional image data, viewpoint-number information of each two-dimensional image and viewpoint-number information as information for selecting two or more two-dimensional images [p0031]; and a means, in a case of executing a process in which it is needed to select the certain number of two-dimensional image data, which is not a primary stereoscopic vision-use

image process, for selecting the certain number of two-dimensional image data according to an order of alignment of the viewpoint-number information as information for selecting the two-dimensional images [p0264, p0265, p0282-p0285 (Proper order and reverse order are considered as order of alignment.)].

Claim 13 has been analyzed and rejected with regard to claim 10 and 5; and in accordance with Takemoto et al's further teaching on: a means for performing an image display according to the display manner based on the selected two-dimensional image data and the display manner information [p0026-p0028].

Regarding claim 14, Takemoto et al further teach: A stereoscopic image display apparatus according to any one of claims 10 to 13, wherein the process which is not a primary stereoscopic vision-use image process is a process for displaying on a screen one or a plurality of two-dimensional image data by applying thereto a reduction-in-size process in order to show contents of the plurality of two-dimensional image data of different viewpoints [p0053, p0133].

Regarding claim 15, Takemoto et al further teach: A stereoscopic image display apparatus according to any one of claims 10 to 13, wherein the process which is not a primary stereoscopic vision-use image process is a process for selecting, out of a plurality of two-dimensional image data of different viewpoints [p0044, p0193], one or a plurality of the two-dimensional image data for use of at least one of a print-out and an

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image delivery [p0045, p0132 (Transmission of an image is considered as image delivery.)].

Claim 16 has been analyzed and rejected with regard to claims 10 and 6.

Claim 17 has been analyzed and rejected with regard to claim 10. Notice, the number of images selected under PSH and PSV of p0175-p0182 can be less than the number of images defined under VPH and VPV of [p0160-p0165].

Regarding claim 21, Takemoto et al further teach: A stereoscopic image display apparatus according to any one of claims 10 to 20, comprising a means for obtaining, from the attached information, information indicating what description formats as a description format of the information is adopted, wherein, in a case of being capable of obtaining the information, a content of the attached information is recognized based on the description format indicated in the information [p0140-p0147, p0189-p0191].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 7, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto et al (US Pub: 2003/0048354) (Applicant submitted reference).

Regarding claim 3, Takemoto et al teach: A stereoscopic vision-use image providing method, when providing as data a plurality of two-dimensional images of different viewpoints, used as stereoscopic vision-use images, providing attached information [p0135] composed of: viewpoint-number information allotted to each two-dimensional image data, or information for obtaining, by an arithmetic calculation on a receiver side, viewpoint-number information in each two-dimensional image area in image data [abstract].

Takemoto et al do not explicitly list the viewpoint-number information in order of priority. However, Takemoto et al teach order of priority of viewpoint in [p0240, p0282-p0285 (Identifying a start position for displaying images is considered as arranging images in priority order.)]. Therefore, it would have been obvious for an ordinary skilled in the art to modify Takemoto et al's teaching to list viewpoint number information in an order of starting from a predefined starting position in the header for the purpose of properly organizing information for defining an appropriate starting position.

Regarding claim 7, the rejection applied to claim 6 has been incorporated herein. Although Takemoto et al do not use "0" and "1" to indicate valid/invalid of purpose of use, Takemoto et al apply "0" and "1" for indicating valid/invalid of other

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information such as boundary process existing or not and same arrangement of camera or not as prescribed in [p0148-p0150, p0167-p0169]. Therefore, it would have been obvious for an ordinary skilled in the art to apply "0" and "1" to DIM region to indicate whether or not the image is for stereovision for the purpose of presenting clear and obvious indication per user preference.

Regarding claim 19, Takemoto et al further teach: A stereoscopic image display apparatus according to claim 17, comprising a means for obtaining information indicating whether or not the plurality of two-dimensional images are an endless series of images, wherein, when obtaining the information indicating that the plurality of two-dimensional images are the endless series of images, a first two-dimensional image and a last two-dimensional image in the plurality of two-dimensional images are allowed to exist in the selected two-dimensional images of certain numbers [figs. 35a, 35b (For images in those endless series the first and the last images always exist no matter how shifting is performed.)]. Although Takemoto et al do not specifically include in an attached header the information indicating whether a series of images are endless, Takemoto et al prescribe and illustrate various consequences on images in a series from being shifted based on the information. Therefore, it would have been obvious for an ordinary skilled in the art to modify Takemoto et al's teaching to add an indication in a header whether a series of images are endless for the purpose of image status indication per user preference.

Regarding claim 20, Takemoto et al further teach: A stereoscopic image display apparatus according to claim 17, comprising a means for obtaining information indicating whether or not the plurality of two-dimensional images are not an endless series of images, wherein, when obtaining the information indicating that the plurality of two-dimensional images are not the endless series of images, in a case that a first two-dimensional image and a last two-dimensional image in the plurality of two-dimensional images exist in the selected two-dimensional image of predetermined numbers, the selected image is shifted so that the first two-dimensional image or the last two-dimensional image are eliminated so as to newly select one or more two-dimensional images [p0265, p0265 figs. 34a, 34b (The images are shifted in those limited (non-endless) series so that the first and last images from before shifting are eliminated after shifting.)]. Although Takemoto et al do not specifically include in an attached header the information indicating whether a series of images are endless, Takemoto et al prescribe and illustrate various consequences on images in a series from being shifted based on the information. Therefore, it would have been obvious for an ordinary skilled in the art to modify Takemoto et al's teaching to add an indication in a header whether a series of images are endless for the purpose of image status indication per user preference.

7. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto et al (US Pub: 2003/0048354) (Applicant submitted reference) and in further view of Tahara et al (US Patent: 6,671,323).

Regarding claim 2, Takemoto et al teach: A stereoscopic vision-use image

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providing method, when providing as data a plurality of two-dimensional images of different viewpoints, used as stereoscopic vision-use images [p0135], providing attached information composed of: viewpoint-number information allotted to each two-dimensional image data, or information for obtaining, by an arithmetic calculation on a receiver side, viewpoint-number information in each two-dimensional image area in image data [abstract]; viewpoint-number information as information for selecting two or more two-dimensional images [p0045, p0175-p0183].

Although Takemoto et al do not explicitly include order-of-priority information in attached header, Takemoto et al disclose: order-of-priority information indicating an order-of-priority of the selected viewpoint numbers, together with the two-dimensional image data [p0240, p0282-p0285 (A start position is considered an order of priority information.)]. In the same field of endeavor, Tahara et al include picture order information as part of data ID in [fig. 15]. Recording and applying image order information have been practiced in the art as prescribed by Takemoto et al and Tahara et al. Therefore, it would have been obvious for an ordinary skilled in the art to combine the teaching of the two to include order of priority information of viewpoint numbers as a part of header for the purpose of easy managing and further utilizing related information.

Claim 12 has been analyzed and rejected with regard to claims 10, 2, and 3.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto et al (US Pub: 2003/0048354) (Applicant submitted reference) and in further view of Suzuki et al (US Pub: 2003/0012425).

Regarding claim 18, Takemoto et al further teach selecting two-dimensional image placed at any position among a series of images in [p0240]. In the same field of endeavor, Suzuki et al teach selecting the middle point of various viewpoint positions as a base point in [p0153]. Therefore, selecting viewpoint number matching center position as a starting point would have been an obvious alternative of Takemoto et al's suggestion to an ordinary skilled in the art per user preference for design choice purpose.

Contact

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fan Zhang whose telephone number is (571) 270-3751. The examiner can normally be reached on Mon-Fri from 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fan Zhang/

Patent Examiner

/Mark K Zimmerman/

Supervisory Patent Examiner, Art Unit 2625